

REMARKS

Claims 1 through 3, 18, and 19 are pending in this Application. Claim 1 has been amended, claims 4 through 9 and 12 through 15 cancelled, and new claims 18 and 19 added. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure. Applicants submit that the present Amendment does not generate any new matter issue.

Claims 12 through 15 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Mizukami et al.¹

Claims 1 through 9 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Higashi et al.

Claims 1 through 9 and 12 through 15 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Toguchi et al.

Each of the above rejections under 35 U.S.C. § 102 is traversed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art.

Dayco Prods., Inc. v. Total Containment, Inc., 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003); *Crown Operations International Ltd. v. Solutia Inc.*, 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002). There is a fundamental difference between the claimed organic electroluminescent device and the devices disclosed by each of the applied references that

¹ This rejection has been rendered moot by canceling claims 12 through 15.

scotches the factual determination that any of Mizukami et al., Higashi et al., or Toguchi et al. disclose an organic electroluminescent device identically corresponding to that claimed.

Specifically, the organic electroluminescent device defined in independent claim 1 is limited with respect to **copper** impurities in a weight concentration of not greater than 500 ppm. None of the applied references recognizes the significance of copper impurities or the need to impose any limitation on the concentration thereof. Indeed, the applied references are concerned with ionic impurities, such as sodium, potassium, halogens, or other organic compounds. None of the applied references is attuned to the significance of **copper** atoms, which exhibits properties different from the impurities addressed by the applied references. There is **no** factual basis upon which to predicate the conclusion that one having ordinary skill in the art, with the applied references in hand, would have recognized that copper atoms adversely impact organic electroluminescent devices and that their concentration should be limited, particularly as claimed.

THE SIGNIFICANCE OF THE COPPER IMPURITIES

Silence in Mizukami et al., Higashi et al., and Toguchi et al. with respect to copper impurities is particularly fatal, because the nature of the **impurities and the maximum concentration of the particular impurities** in the claimed invention are functionally significant. As disclosed in the paragraph bridging pages 3 and 4 of the written description of the specification, after experimentation it was **discovered** that **copper** impurities in the organic compound layer caused significant deterioration in carrier transport capability, leading to **deteriorated luminescent characteristics**. The claimed invention addresses and solves that

problem by controlling the maximum amount of copper **particular impurities** in the organic compound layer. That **concept** is alien to the applied references.

The above argued fundamental difference between the claimed electroluminescent device and the device disclosed by each of Mizukami et al. (noting that Mizukami et al. was not applied against Claim 1), Higashi et al., and Toguchi et al. undermine the factual determination that any of these references disclose a device identically corresponding to that claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc.*, 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986). Applicants, therefore, submit that the imposed rejection of claims 12 through 15 under 35 U.S.C. § 102 for lack of novelty as evidenced by Mizukami et al., of claims 1 through 9 under 35 U.S.C. § 102 for lack of novelty as evidenced by Higashi et al., and of claims 1 through 9 and 12 through 15 under 35 U.S.C. § 102 for lack of novelty as evidenced by Toguchi et al. are not factually or legally viable and, hence, solicit withdrawal thereof.

New claims 18 and 19.

New claims 18 and 19 are clearly free of the applied prior art by virtue of their dependence upon independent claim 1, the separate patentability of which has been argued *supra*. Moreover, Applicants separately argue the patentability of claims 18 and 19 based upon the limitations expressed therein. Certainly, the applied prior art neither discloses nor suggests the notion of limiting the method of combining whole transport materials and the method of analyzing copper as set forth in these claims. Accordingly, claims 18 and 19 are clearly free of the applied prior art.

Based upon the foregoing it should be apparent that the imposed rejections have been overcome, and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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